



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,018	12/12/2003	Matthew Kenneth Gracie	56704.000109	2322

27682 7590 03/23/2006

HUNTON & WILLIAMS LLP  
INTELLECTUAL PROPERTY DEPARTMENT  
RIVERFRONT PLAZA, EAST TOWER  
951 EAST BYRD ST.  
RICHMOND, VA 23219-4074

EXAMINER

TARAE, CATHERINE MICHELLE

ART UNIT	PAPER NUMBER
----------	--------------

3623

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/735,018	<b>Applicant(s)</b> GRACIE ET AL.	
	<b>Examiner</b> C. Michelle Tarae	<b>Art Unit</b> 3623	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 January 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The following is a Final Office Action in response to the communication received on January 5, 2006. Claims 1, 15, 16, 29, 40 and 50 have been amended. Claims 1-53 are now pending in this application.

#### ***Response to Amendments***

2. Applicant's amendments to claims 1, 15, 16, 29, 40 and 50 are acknowledged.

The amendment to claim 15 is not sufficient to overcome the claim objection set forth in the previous Office Action. The amendment only added the word, question, but did not remove the second, question. Now the phrase reads, basic question set question. Accordingly, the claim objection is maintained below.

#### ***Response to Arguments***

3. Applicant's arguments have been fully considered, but are found unpersuasive.

In the Remarks, Applicant argues that Hayward does not disclose a "basic question" as it has been defined in Applicant's specification. In response to the argument, Examiner respectfully submits that the features upon which applicant relies (i.e., that a basic question is one that all customers must answer) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). However, Hayward does disclose basic question sets in col. 36, lines 1-13, where it discloses that each guideline topic has

specific questions that need to be asked in order to gather enough information to develop a medical suggestion or determine a health assessment. Hayward provides the example of a guideline for assessing cardiovascular health, which has specific questions that have to be answered in order to determine risk for cardiovascular disease (also see Figures 84 and 85).

In the Remarks, Applicant argues that Hayward does not associate a single expected answer with any question. In response to the argument, Examiner respectfully disagrees. Hayward discloses the concept of "expected" answers in a couple of ways. The first example, in col. 8, lines 37-40; col. 9, lines 3-4 and 24-28; and col. 12, lines 44-47, discloses a Reliability Index/Score used to measure inconsistent answers from patients. The Reliability Index/Score is derived from the stored guidelines which include a frequency table that indicates how different demographics have answered questions in the past (col. 11, lines 53-57; col. 13, lines 26-28). Therefore, the Reliability Index/Score is a measure of how often a patient selects (or does not select) an "expected" answer based on the patient's demographics and other reported medical data.

A second example, in col. 12, lines 36-43; col. 33, lines 42-46 and 56-65; col. 35, lines 54-61; and col. 36, lines 8-13, Hayward discloses associating risk scores with each answer. "Expected" answers are associated with high-risk scores and "expected" answers are associated with low-risk scores. In the cardiovascular example in col. 36, lines 8-13 and Figures 84 and 85, Hayward discloses that there are "expected" answers that indicate a high risk for cardiovascular disease. Likewise, there are "expected"

Art Unit: 3623

answers associated with a low risk for cardiovascular disease. Thus, there are “expected” answers associated with risk factors for each guideline, which are associated with risk scores to measure a patient’s health risk. Therefore, Examiner respectfully submits Hayward does disclose associating a single expected answer with any question.

Accordingly, the prior art rejection is maintained and repeated below.

### ***Claim Objections***

4. Claim 15 is objected to because of the following informalities: Claim 15 recites, basic question set question. It appears the phrase should read, basic question set.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-53 are rejected under 35 U.S.C. 102(b) as being anticipated by Hayward et al. (U.S. 5,574,828).

As per claim 1, Hayward et al. discloses a computer-implemented method of compiling a customer information set that complies with regulatory criteria, the method comprising:

providing an overall question set having a plurality of questions (col. 11, lines 25-34; col. 12, lines 18-26; Figure 15; Question sets are established for each guideline and are stored in libraries.);

determining from the overall question set a basic question set, the basic question set including at least one basic question (col. 11, lines 41-44; col. 36, lines 1-13; Figures 84 and 85; Users can filter question sets and individual questions by keyword or categories, thus determining basic question sets or basic questions. Additionally, each guideline has specific questions that need to be asked in order to have enough information to develop a medical suggestion or health assessment. Hayward provides the example of a guideline for assessing cardiovascular health, which has specific questions that have to be answered in order to determine risk for cardiovascular disease.);

associating a single expected answer with at least one question of the basic question set (col. 8, lines 37-40; col. 9, lines 3-4 and 24-28; col. 12, lines 36-47; col. 13, lines 2-8; col. 33, lines 42-46 and 56-65; col. 35, lines 54-61; col. 36, lines 8-13; Figures 84 and 85; Users can establish relationships between questions and answers, including associating expected answers to questions. More specifically, expected answers are associated with low-risk levels and high-risk levels for various health risks. Additionally, expected answers are determined based on how patients in different demographic groups have answers the questions in the past, which in turn, allows the system to compute Reliability scores for answers submitted by patients.);

providing criteria for modifying the basic question set based on receiving an answer that differs from the expected answer (col. 12, lines 3-12; Received answers are audited against expected answers according to question branching rules and algorithms (i.e., criteria).); and

conducting an optimized interactive customer survey with a customer using the overall question set, the basic question set, the expected answer and the criteria for modifying the basic question set (col. 12, lines 18-26; Interactive surveys are posed to customers, where the surveys are executed based on the established question sets as well as branching rules and algorithms (i.e., criteria).).

As per claim 2, Hayward et al. discloses a method according to claim 1, wherein the criteria for modifying are structured to minimize the number of questions that must be answered during the optimized interactive customer survey in order to comply with the regulatory criteria (col. 5, lines 34-43; Surveys that must comply with regulatory criteria automatically obviate questions deemed impermissible by law, thus minimizing the number of questions that must be answered.).

As per claim 3, Hayward et al. discloses a method according to claim 1, wherein the action of conducting an optimized interactive customer survey includes:

displaying to a user the at least one question of the basic question set; receiving from the user an answer to the at least one question of the basic question set; determining whether the received answer differs from the expected answer associated with the at least one question of the basic question set; responsive to a determination that the answer differs from the expected answer associated with the at least one

Art Unit: 3623

question of the basic question set, establishing an updated question set using the overall question set, the basic question set and the criteria for modifying the basic question set; and displaying to the user at least one question from the updated question set (col. 3, lines 50-54; col. 7, line 62-col. 8, line 5; Figures 24-26; The system discloses developing and displaying interactive surveys to customers, where the surveys are developed using branching and algorithm rules for altering subsequent questions for display based on analysis of the received answers to previously displayed questions.).

As per claim 4, Hayward et al. discloses a method according to claim 1, further comprising:

constructing a customer information set using answers received during the optimized interactive customer survey; and storing the customer information set (col. 11, lines 53-55; The system stores customer information sets according to past answered questions.).

As per claim 5, Hayward et al. discloses a method according to claim 1, wherein the basic question set includes a plurality of questions from the overall question set and wherein the action of conducting an optimized interactive customer survey includes:

displaying a first display question set consisting of a plurality of questions from the basic question set including at least one question having an associated answer; receiving from the user an answer to the at least one question having an associated expected answer; determining whether the received answer differs from the expected answer associated with the at least one question having an associated expected answer; and responsive to a determination that the answer differs from the expected



answer, establishing an updated question set using the overall question set, the basic question set and the criteria for modifying the basic question set and displaying a second display question set consisting of a plurality of questions from the updated question set (col. 3, lines 50-54; col. 7, line 62-col. 8, line 5; col. 14, lines 12-26; Figures 24-26; The system discloses developing and displaying interactive surveys to customers, where the surveys are developed using branching and algorithm rules for altering subsequent questions for display based on analysis of the received answers to previously displayed questions.).

As per claim 6, Hayward et al. discloses a method according to claim 1 further comprising:

associating an anticipated answer set with at least one of the plurality of questions, the anticipated answer set comprising at least one anticipated answer (col. 13, lines 2-8; Users may establish relationships between questions and answers, including associating expected answers to questions.); and

responsive to receiving during the optimized interactive customer survey an answer to the at least one of the plurality of questions that matches one of the at least one anticipated answer, determining a risk contribution factor to be associated with the received answer (col. 12, lines 36-43; col. 13, lines 2-8; Figure 18; Users may establish relationships between questions and answers, including associating expected answers to questions as well as risk scores and risk factors.).

As per claim 7, Hayward et al. discloses a method according to claim 6 wherein the risk contribution factor is determined from a predetermined risk contribution factor

value associated with the at least one anticipated answer (col. 33, lines 42-46; Figures 18, 84 and 85; Risk contribution factor values are associated with anticipated answers.).

As per claim 8, Hayward et al. discloses a method according to claim 7 wherein the risk contribution factor is determined based on a risk factor calculation that uses a first predetermined risk factor value, the first predetermined risk factor value being associated with the at least one anticipated answer (col. 33, line 42-col. 34, line 24; Figures 84 and 85; The system calculates risk scores, which are based on adding risk factor values associated with anticipated answers.).

As per claim 9, Hayward et al. discloses a method according to claim 8 wherein the risk factor calculation also uses a second predetermined risk factor value, the second predetermined risk factor value being associated with a second anticipated answer that has been matched by a received answer (col. 33, line 42-col. 34, line 24; Figures 84 and 85; The system calculates risk scores, which are based on adding risk factor values associated with anticipated answers.).

As per claim 10, Hayward et al. discloses a method according to claim 1 further comprising:

associating an anticipated answer set with at least one of the plurality of questions, the anticipated answer set comprising at least one anticipated answer (col. 13, lines 2-8; Users may establish relationships between questions and answers, including associating expected answers to questions.); and

responsive to receiving during the optimized interactive customer survey an answer to the at least one of the plurality of questions that matches one of the at least

one anticipated answer, determining an aggregate risk value (col. 12, lines 36-43; col. 13, lines 2-8; col. 33, line 42-col. 34, line 24; Figures 18, 84 and 85; Users may establish relationships between questions and answers, including associating expected answers to questions as well as risk scores and risk factors. Risk factors identified for each answer are then summed to determine an overall risk score, or aggregate risk value.).

As per claim 11, Hayward et al. discloses a method according to claim 10 wherein the risk contribution factor is determined from a predetermined risk contribution factor value associated with the at least one anticipated answer (col. 33, lines 42-46; Figures 18, 84 and 85; Risk contribution factor values are associated with anticipated answers.).

As per claim 12, Hayward et al. discloses a method according to claim 11 wherein the risk contribution factor is determined based on a risk factor calculation that uses a first predetermined risk factor value, the first predetermined risk factor value being associated with the at least one anticipated answer (col. 33, line 42-col. 34, line 24; Figures 84 and 85; The system calculates risk scores, which are based on adding risk factor values associated with anticipated answers.).

As per claim 13, Hayward et al. discloses a method according to claim 12 wherein the risk factor calculation also uses a second predetermined risk factor value, the second predetermined risk factor value being associated with a second anticipated answer that has been matched by a received answer (col. 33, line 42-col. 34, line 24;

Art Unit: 3623

Figures 84 and 85; The system calculates risk scores, which are based on adding risk factor values associated with anticipated answers.).

As per claim 14, Hayward et al. discloses a method according to claim 1, wherein the action of conducting an optimized interactive customer survey is carried out as part of a front-end customer identification procedure (col. 7, lines 37-44; col. 7, line 62-col. 8, line 2; col. 10, lines 49-51; The interactive customer survey solicits information from users taking the survey.).

As per claim 15, Hayward et al. discloses a method according to claim 1 further comprising:

determining for at least one basic question set whether an answer to the at least one basic question set may be determined from non-customer-supplied information; and responsive to a determination that an answer to the at least one basic question set may be determined from non-customer-supplied information, removing the at least one basic question set from the basic question set (col. 8, lines 2-5; col. 10, lines 49-51; The survey can receive data from survey administrators, such as doctors, instead of from customers or patients directly. The system then allows survey administrators to use the edit reported data feature to edit or delete questions based upon received responses in order to make the survey output more accurate.).

Claims 16-53 recite substantially similar subject matter to claims 1-15 above. Therefore, claims 16-53 are rejected on the same basis as claims 1-15 above.

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Michelle Colon whose telephone number is 571-272-6727. The examiner can normally be reached Monday – Friday from 8:30am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz, can be reached at 571-272-6729.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 3623

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*cm*  
cmt

March 19, 2006

*Susanna M. Diaz*  
**SUSANNA M. DIAZ**  
**PRIMARY EXAMINER**  
*Au3623*